IN THE SPECIFICATION

Please amend the specification as follows:

On page 1, please amend the second full paragraph, containing lines 14-20, with the following paragraph:

-- SDMs have received much attention in recent years. The combination of over-sampling and noise shaping has revealed performance levels, which were not achievable just a few years ago in integrated circuit technology. The principle can be used in many applications. Examples such as analog to digital converters, digital to analog converters, phase locked loops, PDM systems, PWM systems etc. have proven the versatility of this principle. The basic idea is that clock frequency is traded off for resolution.--

A1

On page 2, please replace the second full paragraph, containing lines 10-17, with the following paragraph:

--One bit single loop SDMs comprise a plurality of integrators embedded in a feedback loop with a plurality of feedback branches. This topology forms the feedback filter 102 and the pre-filter 101. It can be shown that the NTF is a high pass filter function while the STF is a low pass filter-function. I.e. the quantization noise is suppressed at low frequencies while the low frequency input signal is passed unaffected through the modulator. A subsequent filter,

A2

A2 cont'd

digital or analog, can then remove the high frequency noise thus leaving the low frequency part of the signal with an improved signal to noise ratio.

On page 2, please replace the third full paragraph, containing lines 19-22, with the following paragraph:

A3

--When designing a SDM it is the design of the filter, which influences the performance of the SDM. It is of interest to choose the order and the coefficients of the filter in such a way that the noise is minimized in the frequency range of interest.--

On page 3, please replace lines 8 and 9 with the following:

A4

--To summarize, the trade-offs when choosing the cut-off frequency in the NTF are:--

On page 3, please replace the third full paragraph, containing lines 16-20, with the following paragraph:

A5

--According to the above, it is therefore of interest to design the filter in such a way that the optimal cut-off frequency is chosen - meaning a cut-off frequency resulting in maximum MSA vs. noise ratio - i.e. maximum signal to noise ratio (SNR_{max}). For each order of SDM's and NTF filter function an optimum NTF cut-off frequency exists for which the SNR_{max} is maximized.--

On page 4, please replace the first paragraph, containing lines 1-3, with the following paragraph:

A6

--It is therefore of interest to establish a new and optimized design route for SDMs to ensure maximum DNR and stability while keeping the distortion in the output signal at a minimum for input signals exceeding MSA.--

On page 4, please replace the fourth full paragraph, containing lines 13-15, with the following paragraph:

A7

-- It is an object of the present invention to provide a new and optimized design route for SDMs for low power and low voltage applications to ensure maximum DNR, maximum SNR_{max} and maximum stability.--

On page 4, please replace the last paragraph, containing lines 35-37, with the following paragraph:

A8

--By cascaded integrators is meant that an integrator output is connected to the input of a following integrator. An integrator can in an embodiment be realized using digital or analog electronics.--

On page 5, please replace the first paragraph, containing lines 1-4, with the following paragraph:

A9

--A comparator is a component transforming the amplitude continuous input signal to an amplitude discrete output signal having either a first or a second value. The input of the SDM may be the input of the first integrator in the cascade of integrators.--

On page 6, please replace the third paragraph, containing lines 10-13, with the following paragraph:

A10

--Thus, if the signal swing at the output of the integrators should become close to unstable (the predefined threshold value) the reduction with the predefined factor or value ensures that instability never occurs and the integrators' signal swing remains stable.--

On page 7, please replace the second paragraph, containing lines 6-7, with the following paragraph:

A11

--MSA_{rms} may be derived from the Gaussian ability criterion by solving the equation:--

On page 9, please replace the third paragraph, containing lines 10-17, with the following paragraph:

--In audio-related applications it is primarily the low frequencies that are important. The reason for this is that the human ear is only sensitive to such low frequencies. In figure 2 the important frequencies are below the dashed line 203 - therefore the noise should be minimized in this frequency range. As already mentioned this can be done by increasing the order of the filter or by moving the NTF cut-off frequency to higher frequencies, although by increasing the NTF cut-off, the MSA will be lowered. Contrary, a lower NTF cut-off frequency results in more noise and higher MSA.--

A12

On page 11, please replace the fourth <u>full</u> paragraph, containing lines 26-33, with the following paragraph:

--The signal swing after each integrator is monitored 602 and, in a preferred embodiment, the output of the first two integrators are minimized by adjusting the coefficients of these integrators 603. When the coefficients of these integrators have been adjusted, the remaining integrator coefficients are adjusted 604 in such a way that the signal swings after the third integrator and the following integrators have a larger signal swing than the signal after the first and the second integrator. The SDM now complies with the above-mentioned advantages.--

A13